New Brunswick
Fish Factsheet

- Mackerel, Atlantic
- Maquereau Bleu
- *Scomber scombrus*

Fish description

The Atlantic mackerel is a handsome fish – streamlined and fast swimming, with dark tiger-like striping on its blue and silvery body.

The mackerel have a fatty flesh with a delicious flavour and are a favourite of some Europeans, especially the portugese, who have fished them for centuries. Despite these favourable qualities and a good reputation on European tables, consumer demand is relatively low in Canada. Many domestic customers do not know what they are missing.
The Atlantic mackerel is a member of the family Scombridae, which is distributed widely throughout tropical and temperate waters the world over and includes a large number of species, the best known being tunas. The Atlantic mackerel is the species of the genus *Scomber* that has the most northerly geographic range.

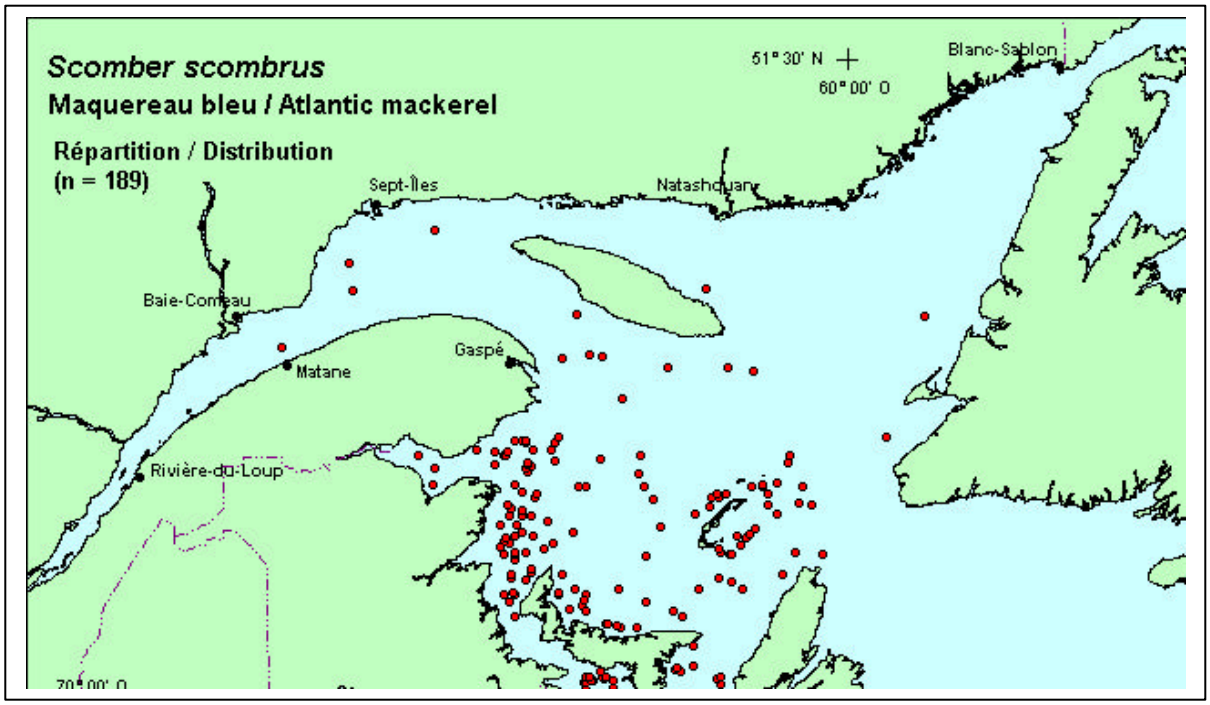
The mackerel family is distinguished by the presence of a spinous and soft dorsal fin, followed by small finlets, with similar finlets behind the anal fin. The Atlantic mackerel is shaped for swimming swiftly with a minimum of effort. It's body is slender, tapering at the tail and snout. The pectoral fins, found just behind the gill openings, are extended like hydrofoils during slow swimming ; at highspeeds, they are swept back and completely pressed to the body. The pelvic fins, located just below the pectorals, are extended only during turning.

This fish has no swim bladder (often called air bladder) and thus must swim continuously to avoid sinking. The lack of the swim bladder also allows it to change depth rapidly. On their long annual migrations, mackerel sometimes travel in very dense schools, especially in the spring and fall. The schools tend to be composed of identical-sized individuals that swim at the same speed.

The small scales of the Atlantic mackerel give the skin a velvety texture. As in many fish, the body is countershaded, dark above and light below. The steel-blue upper surface has 23 to 33 dark wavy bands extending down to the midline. The lower sides are silvery with a coppery or brassy iridescence. The belly is silvery-white.

Distribution

Atlantic mackerel are found over the continental shelf on both sides of the Atlantic Ocean. In the northwest Atlantic, mackerel range from Triangle Harbour, Labrador, southward to Cape Hatteras off North Carolina ; not abundant north of the southern Gulf of St. Lawrence or Newfoundland. Common at Anticosti ; abundant seasonally in southern gulf of St. Lawrence and at the Magdalen Islands. Found sparingly in the Bay of Fundy, chiefly on the Nova Scotia side. Found occasionally on Sable Island Bank in winter.



Source : Environment Canada. Canadian Wildlife Service.

Mackerel are pelagic inhabitants of the open sea and one of the most active and migratory species. There are two groups or spawning stocks of mackerel in the northwest Atlantic region, each with its own spawning area. The southern stock spawns in March and April along the New Jersey coast. Although spawning does occur along the coast of Nova Scotia, the northern stock spawns mainly in the southern Gulf of St. Lawrence in June and July. Spawning takes place each year after a long migration the begins some months earlier in the Georges Bank area.

Fishing areas & Fishing season

Source : Fisheries and Oceans Canada

Gulf of St. Lawrence : The Canadian mackerel fishery is chiefly an inshore fishery. In New-Brunswick, there is mackerel fishing in area 16 starting June 1st until the end of December.

Fishing gear & Fleet

Gulf of St. Lawrence : The most commonly used gear types are gillnets, handlines, purse seines and traps, in decreasing order of importance. Their utilisation depends on the area and time of year

New-Brunswick has five exploratory licences using an automatic "jigger". The development of this technology could allow an increase in mackerel landings.


Gillnet, Fisheries and Oceans Canada

The most commonly used gear types in **Canada** are gillnets and handlines, which account for mean annual landings of 6,575 t and 4,498 t respectively. Gillnets are used mostly in spring and handlines in fall. Traps are also important, accounting for mean annual landings of 3, 498 t. They are used chiefly in spring in Nova Scotia. Fall catches by purse seiners on the west coast of New fondland are also significant. The success of this fishery is strongly dependent on the water temperatures and prevailing winds in this region.

Fishing licenses in New-Brunswick

There is 1245 licenses for the mackerel fishery in New-Brunswick (2000).
In 2001, there was more than 15,000 mackerel fishermen in the Maritimes and Quebec.

Total Allowable Catch (TAC)

The TAC recommendation is fixed at 100,000 t for the Atlantic. The mackerel fishery is a competitive fishery, and is constrained not only by resource availability but also by market. Overall, Canadian landings are stable from year to year, averaging just over 21,000 t annually since 1990.
The TAC is divided into : 60,000 t for the traditional in-shore fishery, and 40,000 t for the exploratory fishing using fixed gear. The minimum legal size is currently (2001), set at 25 centimeters.

Landings

Gulf of St. Lawrence : Landing values in 1998 were estimated at $600,000 for approximately 1224 t of mackerel. Most of the spring landings are sold to lobster fishermen for bait.

Historical landings
Northwest Atlantic mackerel have been harvested since the 17th century. Landings have been extremely variable. During the 19th, century the Americans developed a large market for salted mackerel. Using hook and line gear, they followed the northern

population as far north as the Gulf of St. Lawrence. During the 1870s the American fishery converted to purse seines and was successfully conducted closer to home. The total catch reached 105,700 metric tons (t) in 1884, but had fallen to 5,700 t by 1910.

During the early years of the 20th century, vessels converted from sail to motor power, and a fresh-fish market developed. Canadian landings exceeded 18,000 t by the late 1930s, but subsequently declined to a low of 5,459 t in 1961. American landings dropped rapidly after the Second World War due to the lack of market development. Since the mid-1950s they have fluctuated between 500 and 4,000 t, lower than any year since 1815.

In 1962, the total catch was 8,000 t but it had risen to 420,000 t in 1973. Catches have varied because of changing market conditions, new technological developments, variations in the abundance of mackerel and the development of the foreign offshore fishery. Since 1973, the fishery managemnet policies of the Canadian and American governments have had a major impact on annual catches. Management is achieved through the licensing of vessels, and the setting of a Total Allowable Catch (TAC) and national allocations.

With a TAC of 105,000 t in 1977 and 1978, total catches were only 78,000 and 28,000 t respectively. The low catches in those two years relative to the TAC are largely due to the inability of the American fishermen to take their share of the allocations, as well as the absence of the large trawler distant water fleet in 1978. These low catch levels did not reflect a very low stock abundance and for 1979 the scientific analyses indicated that 150,000 t could be safely taken. However, market conditions were extremely limiting, and the only major effort was by Canadian inshore fishermen, who accounted for more than 90 per cent of the 33,000 t catch.

As a result of agreements with the United States and the Commonwealth of Independent States, catches rebounded considerably in the early 1980s, peaking at nearly 90,000 t in 1988. A gradual reduction in quotas set by the United States, ending with the complete closure of this fishery in 1992, explains the major reduction in landings that occurred in later years for the northwest Atlantic.

Mackerel landings in Canadian waters are generally stable from year to year, averaging just over 21,000 t from 1990 to 1999.

References

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